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***IN-VITRO* ANTI-INFLAMMATORY POTENTIAL IN *HIBISCUS FURCATUS* WILLD.**

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*Hibiscus furcatus* Willd. (Malvaceae) is a semi-shrubby perennial, extensively utilized in Sri Lankan traditional medicine for the treatment of inflammatory conditions, skin diseases and related disorders. However, neither its pharmacological features nor the phytochemistry are explored in depth, in order to understand and rationalize the reported ethnobotanical significance. Thus, the present investigation is undertaken to investigate, anti-protease and 5-lipoxygenase inhibitory activities of extracts of *H. furcatus* (using *n*-hexane, dichloromethane, ethyl acetate, methanol and water as solvents). Since specific protease inhibitors are considered as powerful tools for inactivation of target proteases in the pathogenic processes of arthritis, emphysema, pancreatitis etc., the serine protease inhibition of the extracts at different concentrations was determined against trypsin. As 5-lipoxygenase is a key enzyme in inflammatory disorders, cell-free and cell-based assays will be employed to investigate the suppression of 5-lipoxygenase activity, and thereby to further support the anti-inflammatory potential. Out of the tested extracts, *n*-hexane, dichloromethane and ethyl acetate extracts have displayed a marked anti-protease activity with IC<sub>50</sub> values of 276.2, 245.0 and 181.2 µg/ml respectively while the IC<sub>50</sub> value of the positive control, acetylsalicylic acid was determined as 92.94 µg/ml. These preliminary findings suggest that *H. furcatus* possess significant anti-inflammatory potential, and further studies on biological activities and phytochemistry are in progress in order to validate its conventional usage as anti-inflammatory remedy.

*Keywords: Anti-protease, Anti-inflammatory, 5-lipoxygenase*